

Amendments to the Claims

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A localization method of a mobile station (2) communicating with at least one central server (1) through a wireless network comprising a plurality of wireless radiofrequency transmitting access points (3), among which a first access point is chosen to perform the communication, comprising ~~the steps of~~:

measuring ~~the~~ signal strengths received by said mobile station from the plurality of access points;

storing each measured signal strength with an address identifying the corresponding connected access point;

comparing said stored signal strengths to values of a predetermined table of signal strength thresholds ~~affected assigned~~ to access points, the signal strength thresholds defining one or more event zones (EZ), each event zone (EZ) comprising one or more attenuation ranges of one or more access points; and

considering the mobile station as located in a given event zone if the measured signal strength corresponding to an access point ~~defining that in the given~~ event zone is ~~comprised in the~~ within an attenuation range of that access point.

2. (Currently amended) The localization method of claim 1, in which said attenuation ranges are a function of ~~the~~ an environment and of ~~the~~ a shape of the event zones (EZ).

3. (Currently amended) A communication method between at least one mobile station (2) and at least one central server (1) through radiofrequency transmitting access points (3) to which said station is wireless connectable, comprising ~~the steps of~~:

establishing a communication between said station and said central server through a first access point of said access points from which said station receives the a highest signal strength;

comparing the a signal strength received by said mobile station from at least one second access point with respect to with at least one signal strength threshold used for defining at least one event zone (EZ) ~~in which at least one specific application of the server is to be available if said station is present in said event zone;~~ and

making available for said mobile station ~~said at least one specific application of the central server~~ if the station is considered in the event zone.

4. (Original) The method of claim 3, in which said station is considered to be in the event zone if the received signal strength is lower than said threshold.

5. (Original) The method of claim 3, in which said station is considered to be in the event zone if the received signal strength is higher than said threshold.

6. (Currently amended) The method of claim 3, in which the station is considered as being in the event zone by applying the a localization method, ~~of claim 1 or 2~~
the localization method comprising:

measuring signal strengths received by said mobile station from the plurality of access points;

storing each measured signal strength with an address identifying the corresponding connected access point;

comparing the stored signal strengths to values of a predetermined table of signal strength thresholds assigned to access points, the signal strength thresholds defining one or more event zones (EZ), each event zone (EZ) comprising one or more attenuation ranges of one or more access points; and

considering the station as located in a given event zone if the measured signal strength corresponding to an access point in the given event zone is within an attenuation range of that access point.

7. (Currently amended) The method of claim 3, in which the communication ~~are~~ is made according to one of the following unregulated spectrum standard suites: 802.11, 802.11a, 802.11b, 802.11e, 802.11f, 802.11g, 802.11h, 802.15.1, 802.15TG2, 802.15TG3, 802.15TG4, Bluetooth, Wi-Fi, HiperLAN1, and HiperLAN2.

8. (Currently amended) A communication system between at least one mobile station (2) and at least one central server (1) through radiofrequency transmitting access points (3) to which the station is wireless connectable, comprising:

means to define, with at least a signal strength threshold of at least one access point, at least one event zone (EZ) in which at least one specific application of the server is to be available to the station if present in that zone; and

means to localize the mobile station with respect to ~~the~~ an event zone boundary, based on ~~the~~ a signal strength received by the mobile station from the access points.

9. (Currently amended) The system of claim 8, in which the localization means of the mobile station is performed ~~by~~ at said central server (1) on the basis of a table defining each event zone (EZ) ~~by~~ with an attenuation range range(s) around one or more access points (3).

10. (Currently amended) The system of claim 8, further comprising means to implement ~~the communication method of any of claim 3 to 7 a communication between the~~ mobile station and the central server through a first access point of said access points from ~~which~~ which said station receives the highest signal strength.

11. (New) The system of claim 10, further comprising means to compare signal strength received by the mobile station from at least one second access point with at least one signal strength threshold used for defining at least one event zone (EZ).

12. (New) The system of claim 11, wherein a specific application is available for the mobile station if the mobile station is considered in the event zone (EZ).

13. (New) The system of claim 12, wherein the mobile station is considered to be in the event zone if the received signal strength is lower than the threshold.

14. (New) The system of claim 12, wherein the mobile station is considered to be in the event zone if the received signal strength is higher than the threshold.

15. (New) The system of claim 12, wherein the communication is made according to one of the following unregulated spectrum standard suites: 802.11, 802.11a, 802.11b, 802.11e, 802.11f, 802.11g, 802.11h, 802.15.1, 802.15TG2, 802.15TG3, 802.15TG4, Bluetooth, Wi-Fi, HiperLAN1, and HiperLAN2.

16. (New) A wireless communication system, comprising:
a server in communication with a plurality of wireless access points having an access point address assigned to each access point; and
a database comprising an event zone table of the access point addresses and corresponding signal strength thresholds wherein each event zone is defined at least with a signal strength threshold;

wherein said server is operable to receive signal level measurements and assigned access point addresses from a mobile station configured to measure signal levels received from the multiple access points, and to compare the received signal level measurement with a signal strength threshold for the assigned access point and determine whether the mobile station is located in the defined event zone.

17. (New) The system of claim 16, wherein each event zone is further defined with a signal attenuation range around one or more access points.

18. (New) The system of claim 17, wherein the multiple access points comprise a first access point and a second access point configured to be in the same event zone and a first signal attenuation range around the first access point is different from a second signal attenuation range around the second access point in the same event zone.

19. (New) The system of claim 18, wherein the first signal attenuation range and the second signal attenuation range overlap and the mobile station operates in at least one of the first signal attenuation range or the second signal attenuation range.

20. (New) The system of claim 16, wherein the event zone table comprises a first event zone and a second event zone configured to include the same access point.

21. (New) The system of claim 16, wherein the signal strength threshold of the event zone is modifiable with one of an application and the mobile station.

22. (New) The system of claim 21, wherein the central server operates to modify the corresponding signal strength thresholds stored in the database.

23. (New) The system of claim 16, wherein one or more access points transmit an application to the mobile station in the event zone and the application comprises at least one of service, software, or data.

24. (New) The system of claim 16, wherein the access point addresses are unique in an environment and the environment is indoors.

Application no. 10/510,415
Amendment dated: September 28, 2005
Reply to office action dated: June 30, 2005

25. (New) The system of claim 16, wherein the server is operable to communicate a specific application associated with the defined event zone to the mobile station determined to be in the defined event zone.